PIANC Bulletin

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Permanent International Association of Navigation Congresses (PIANC)

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President's Message *by Major General Don T. Riley, President, U.S. Section, and Director of Civil Works, U.S. Army Corps of Engineers*

Dear Members,

It was a pleasure for Chairman John Paul Woodley, Jr. and me to meet with those of you who attended the 2005 PIANC Annual General Assembly (AGA 05), Technical Seminar, and U.S. Section Meeting, held in Charleston, South Carolina. The event was well attended by U.S. and international delegates, reinforcing the strong maritime relationships we have with partner nations in advancing international waterborne commerce.

MG Don T. Riley

PIANC remains a strong influence and an integral entity for promoting our international commerce goals together. A key consideration discussed at AGA 05 was the need for our organization, both internationally and within the U.S. Section, to embark on a strategic planning initiative that charts the way ahead for continuing and enhancing our successes.

This strategic planning begins with identifying how we create value for our members and the navigation community. Key themes being developed are:

INSIDE…

Enhancing Communications and Collaboration. Interaction among our membership with sister organizations, and with the navigation community at large forms the core of PIANC strength and utility. PIANC creates value when we convene to address policy, management, and technical needs in the navigation field; develop agreements with other organizations having similar missions to advance common goals; and deliver current, relevant information to the navigation community via our websites and news bulletins.

Promoting Technologies. PIANC has been a forerunner in developing and transferring current state-of-the-art navigation technologies. We create value by producing guidebooks through workgroups of top international industry professionals; offering technical seminars and workshops to members and the navigation community as interactive technology transfer sessions; and by giving younger members the opportunity to compete annually by submitting technical papers in the navigation field for the DePaepe-Willems Award competition.

Assisting Transitioning Countries. PIANC has been strategically reaching out to countries in transition through a program oriented towards ensuring that their economic development is sustainable with the environment, protecting and conserving natural resources, and ensuring safe and equitable working conditions. Member nations, having gone through extensive development, have much to offer in terms of valuable experience and knowledge to assist transitioning countries in achieving these goals. In this way all member nations can prosper together safely and reliably to advance international waterborne commerce.

More on strategic planning is contained in a related article in this issue. The U.S. Secretariat needs, and values, feedback from our membership on this important subject as we seek to leverage the talents of our organization to reach the next level of service to the navigation industry. Please send your ideas to Mr. Tom Wakeman, U.S. Commissioner and International Vice President, at *twakeman@panynj.gov*

Sincerely,

Major General Don T. Riley
President, U.S. Section, and Director of Civil Works, U.S. Army Corps of Engineers

PIANC and ASCE Take Charleston!

by Edmond Russo

PIANC membership, from the four corners of the world, descended on beautiful and historic Charleston, South Carolina, to continue the PIANC mission. The Francis Marion Hotel, located in down town Charleston, was the scene for the 2005 PIANC Annual General Assembly (AGA 05) – one of three events held by PIANC on this occasion. Other PIANC events included a U.S. Section Technical Seminar, as well as a U.S. Section Commissioner's Meeting. Adding to the opportunities to network and learn, the Coasts, Oceans, Ports, and Rivers Institute (COPRI), of the American Society of Civil Engineers (ASCE), held their Solutions to Coastal Disasters Conference nearby at the Doubletree Hotel.

AGA 05 Opening Reception, Charleston Harbor in background. PIANC President Eric van den Eede (center); Left and right, respectively: Delegates Valère Vautmans (Belgium) and Paul Scherrer (France).

The opening reception of AGA 05 was held at the South Carolina Aquarium, which was preceded by a horse drawn carriage ride of the delegates through Charleston's Historic District from the Francis Marion Hotel.

At AGA 05, there were several notable events held and resolves made by the organization. These included:

- ***Resolution 05 – "PIANC for the Americas".*** Recognizing that the world's water transportation system continues to be a vital link between all countries in this period of significant international trade growth, PIANC will:
  - Strive to ensure infrastructure development to support growth in maritime trade is conducted in an environmentally sustainable manner,
  - Promote international cooperation to ensure safety and security of maritime trade assets, and
  - Continue in the tradition of technical exchange, training, and research.
- ***Presentation of the Jack Nichol Award.*** The Jack Nichol Marina Design Award for 2005 was presented to the Hammond Marina in Hammond, Indiana, which is located about 14 miles by boat from downtown Chicago on Lake Michigan. See related article in this quarterly.
- ***Presentation of the De Paepe-Willems Award.*** Dr. Javier Lopez Lara, with the Ocean and Coastal Research Group, University of Cantabria, Spain, was this year's recipient of the De Paepe-Willems Award, for his paper entitled "Numerical Wave Flume to Study the Functionality and Stability of Coastal Structures". His work was recognized as exemplary towards its potential for future applications in coastal and harbor engineering.

PIANC leadership at work during AGA 05

PIANC President Eric van den Eede, as well as Major General Don T. Riley, Director of Civil Works, HQUSACE, and President of the U.S. Section, both took the opportunity during the AGA 05 Banquet to describe a vision of PIANC for the future. They challenged members to embark upon a road of increased relevance and value to the navigation industry, delivering three strategic messages to delegates:

- Governments, private partners, and academia, have benefited greatly from PIANC information sharing over the last century, via a network of navigation experts residing within our membership,
- As pressure increases for maritime trade on the world's ports and waterways, there is increased need and opportunity for PIANC to guide sustainable management, planning and engineering of water resources infrastructure development, and
- Through international cooperation, we will together ensure the safety and security of navigation industry assets as we conduct international maritime trade.

Delegates had the opportunity to visit the amazing recovery of the historic wreck of the HUNLEY submarine, which never returned to shore following its attack on the U.S.S. HOUSATONIC just outside Charleston Harbor. A boat tour also ensued of Charleston Harbor, to view maritime commerce, waterside facilities, and naval activities.

The group also visited Fort Sumter, where the opening engagement occurred that started the Civil War.

Fort Sumter, photo credit: National Park Service

The U.S. Section hosted a day long Technical Seminar, which had a morning session with presentations on port development, and an afternoon session on rebuilding Iraq's Port and U.S. navigation issues. The keynote address, which was delivered by Mr. Alberto Aleman Zubieta, Panama Canal Administrator, was on Panama Canal Operations and Port Trends.

Concluding these series of events was a meeting of the U.S. Section Commissioners, with PIANC President Eric van den Eede present as a guest. Among the special events occurring during this venue was:

- Signing of a Partnering Agreement between the American Association of Port Authorities (AAPA) and the U.S. Section, for strengthened cooperation and enhanced effectiveness of both organizations towards resolution of current technical and management issues in navigation, events hosting, and technical information exchange;
- Recognition of retiring commissioners, Mr. Bob Nichol and Mr. Kurt Nagle,
- Selection of new commissioners, Mr. John Headland and Mr. David Sanford,
- Report of the Young Professionals Implementation Group (see related article in this issue).

U.S. Section President, MG Riley (left, each photo), and U.S. Section Chairman, Mr. Woodley (center, each photo), honoring retiring commissioners Bob Nichol (top right) and Kurt Nagle (bottom right)

COPRI's Solutions to Coastal Disasters Conference *by Kelly Barnes*

Last season's hurricanes and the recent Indian Ocean earthquake and tsunami resulted in the loss of hundreds of thousands of lives, and billions of dollars in economic damage. In an effort to help mitigate the extensive damage and tragic loss of life caused by these and other natural disasters, coastal professionals gathered at the Solutions to Coastal Disasters Conference, held May 8-11, 2005 in Charleston, S.C., to examine lessons learned from these recent events and to explore other vital issues in coastal engineering.

The conference, organized by the Coasts, Oceans, Ports, and Rivers Institute (COPRI) of the American Society of Civil Engineers (ASCE), featured special plenary sessions on the 2004 hurricanes and Asian tsunami. The tsunami session presented the impact on different geographical areas, the use of integrated GPS, imagery and remote sensing after the event, recommendations on building code modifications, implications of warning systems and storm surge modeling and post-tsunami technical assessments from onsite visits conducted in February 2005. The closing

plenary session featured an in-depth look at the impact of Hurricane Ivan on the Gulf shores, including pre-storm mitigation, planning and preparation and post-storm response, recovery and mitigation, by Chuck Hamilton, P.E., Director of Public Works, Gulf Shores, Ala.

Conference attendees had the opportunity to tour historic Charleston's peninsula focusing on earthquake and hurricane impacts on sea walls, homes, churches, institutional buildings, and other points of historic and cultural interest. W. Jeff Davis, Ph.D., Assistant Professor in Civil Engineering at The Citadel, lead the tour.

In a mix of topical and technical sessions, this year's program offered over 120 technical presentations covering a number of challenges coastal professionals face. Attendees heard papers on topics such as Hazards Mitigation Planning, Storm Surge, Erosion, Shoreline Monitoring and Surveying, Flood Hazard Mapping, Winds and Buildings and Economic Losses. Other featured speakers included Margaret A. Davidson, National Atmospheric Administration (NOAA) Coastal Services Center Director, and Charleston Mayor, Joseph P. Riley, a past member of the distinguished Pew Commission on Ocean Policy.

Along with the technical sessions, conference attendees enjoyed several networking functions and field trips including a beach restoration by inlet relocation at Seabrook Island and a technical walking tour of historic Charleston buildings that have withstood 29 hurricanes/tropical storms since 1871. Additionally, NOAA organized a Town Hall discussion forum focusing on ocean and coastal observation systems, coastal modeling and key issues confronting ocean science professionals. The pre-conference workshop, Application of Coastal Engineering in Coastal Zone Management, covered the physical processes that govern shoreline movement, as well as the options available for dealing with coastal erosion and coastal hazards, such as storms and waves. The conference awards luncheon featured the 2005 Moffatt-Nichol Award presentation to Karyn Erickson.

Timothy Kana and Philip McKee led the technical tour to Seabrook Island, a private beach community south of Charleston, where participants got to learn firsthand about the role of inlets along the South Carolina coast and how littoral sand supplies can be manipulated in a beneficial and cost-effective manner. Photo credit: Spencer Rogers.

COPRI would like to thank the many sponsors, cooperating organizations and exhibitors who made this event possible. Their support is crucial for the conference's continued success. In particular, NOAA, the U.S. Geological Survey (USGS) and Michael Baker, Jr., Inc. should be congratulated for their significant contributions to this year's conference. Special thanks also goes to Louise Wallendorf and the Coastal Zone Management Committee for doing a tremendous job of organizing the conference. Look for

announcements for Solutions to Coastal Disasters 2008 – coming soon!

Exhibitors and conference attendees had a chance to mingle during the opening night networking reception. Pictured here are: Paul Devine, RD Instruments, and John Ramsey, Applied Coastal. Photo credit: Lesley Ewing.

COPRI Announces Formation of New Military Programs Technical Committee *by Kelly Barnes*

In March 2005, the COPRI Board approved the formation of the Military Programs Technical Committee. The purpose of the new committee is to study and disseminate information, within the overall mission of COPRI, related to all aspects of military-related programs and specific project applications on a worldwide basis. The committee aims to establish and maintain relationships with other professional organizations, such as Society of American Military Engineers (SAME), interested in military programs to cultivate opportunities for joint efforts. These efforts had started some years ago at what was then the U.S. Army Engineer Waterways Experiment Station (now the Engineering Research & Development Center). A nationwide conference was held to discover and disseminate research efforts across all services at the time. "The charge of this committee will be to take this concept even further, and to disseminate information about ongoing and future work efforts to enhance, military programs delivery across the services," said Jim Marino committee chair.

The committee will interact with engineers, scientists and other professionals to ensure the practice, policy, research, development and implementation of the planning, design, construction, maintenance and operations of programs, which have national and worldwide military application. The committee plans to schedule and coordinate military program conferences or sub-sessions in conjunction with major COPRI conferences. Anyone interested in being part of the Military Programs Technical Committee should contact Jim Marino, P.E. at jmarino@hntb.com.

PIANC Conducts Strategic Planning for the Way Ahead *by Tom Wakeman*

The 21st century has brought with it amazing changes in almost all sectors, organizations and countries. The navigation sector is no exception. PIANC's National Sections and individual members are facing numerous changes that are affecting their activities and their futures as well. To keep pace with these and coming changes in the global navigation sector, in February 2005 the Executive Committee undertook a one-year process to revisit the organization's Strategic Plan and adopt a new Strategic Plan for 2006-2010 period in Portugal.

At the U.S. Section Commissioner's Meeting held in conjunction with AGA 05 in Charleston, South Carolina, delegates were advised of the process. The Commissioners provided some initial comments to the first draft during this event. As President Eric van den Eede stated: "This is a clean sheet of paper exercise." meaning that all aspects of future direction of the organization, National Sections and members are to be considered. To do otherwise "...is to risk our very survival!" according to President van den Eede.

The development schedule is to collect comments, ideas, and recommendations from the

Working Groups, Commissions, National Sections and individual members over the next several months on the draft document. This invitation will be open until the first of October 2005, then closed to allow the Executive Committee sufficient time to edit the working draft to its next stage at their October 2005 meeting. Once the Executive Committee completes their work, the document will be submitted to the Council for their final comments at the December 2005 meeting. Any remaining discussion would occur at the Executive Committee meeting in February 2006. It is envisioned that the new Strategic Plan for 2006-2010 will be ready for approval at the AGA in Estoril, Portugal.

The themes for the 2006-2010 Strategic Plan are:

- Promote Communications (External and Internal)
- Value Technical Capabilities & Enhance Technical Reputation
- Assist Countries in Transition
- Expand Number of National Sections & Membership Benefits
- Cooperate with Sister Organizations

Our vision is that PIANC strives to be the leading international source of technical guidance and management recommendations for the sustainable development of ports and waterways, including matters of planning, design, construction and operation, to achieve long-term economic, environmental, and societal benefits.

The organization's Mission Statement is that PIANC intends to work cooperatively with others including nations, sister societies, and individuals, to disseminate highest quality technical products and materials that educate and guide public and private organizations in the navigation sector to achieving greater public benefits and to garner greater public support. In coordination with the mission statement, the following goals have been established for the Strategic Plan:

- External
  - Promote PIANC global recognition, credibility, and technical products.
  - Contribute our expertise to the successful development of the navigation sector in Countries in Transition.

- Internal
  - Enhance the vitality of National Sections and benefits of membership
  - Attract new members by enhancing the status and recognition of Working Groups members' contributions to the organization and the industry
  - Increase participation by actively seeking and recruiting young professionals and professionals from non-traditional sectors.

At their May 13, 2005 meeting, the U.S. Section Commissioners, with the approval of our Chairman, John Paul Woodley, Jr., and the section's President, Major General Don Riley, have embarked upon a parallel strategic planning initiative that will follow the same timeline as Headquarters' initiative proposed for completion in May 2006.

The U.S. Section planning and discussions will not only focus on the vitality of the U.S. Section and younger person membership but also on U.S. Section's future dealings with the entire of the Americas navigation sector needs. Activities at AGA 05, including the ideas and work featured at the May 12, 2005 Technical Sessions and the signing of a new agreement with AAPA on the 13th, adds new opportunities for the U.S. Section Strategic Plan for 2006-2010 to serve navigation in this hemisphere.

Comments and suggestions would be gratefully received and will be forwarded for transmittal to the Executive Committee for their consideration and action. Recommendations, ideas and comments by National Section members should be forwarded by October 1, 2005 to Tom Wakeman at *twakeman@panynj.gov*.

The United States National Dredging Team: Implementing Actions for Dredged Material Management

by Craig Vogt, Barry Holliday, Elizabeth Kim, and Molly Madden

Dredging is critical for maintaining navigation in ports, harbors, and inland waterways worldwide. This maintenance directly impacts a country's economy, national security, and environment. In the United States, ports handle over $700 billion in merchandise a year (U.S. Commission on Ocean Policy, 2004). Several hundred million cubic yards of sediment are dredged each year from U.S. waterways, ports, and harbors to maintain the navigation system.

Dredged material is often disposed at sea. In the United States, approximately 20% of navigational dredged material is placed at sea. The majority of ocean material placed in the U.S. today is dredged material. The United States, which is a party to the primary international agreement regarding ocean dumping (the London Convention), has a strong active program to regulate dredged material management and placement. The U.S. National Dredging Team was formed in 1995 as part of this program to further improve national, regional, and local coordination of the dredging process.

United States National Dredging Team. The National Dredging Team (NDT) promotes national and regional consistency on dredging issues and provides a mechanism for issue resolution and information exchange among stakeholders and federal, state, and local agencies. The NDT is comprised of the following federal agencies:

- U.S. Environmental Protection Agency - Co-Chair
- U.S. Army Corps of Engineers - Co-Chair
- Maritime Administration (MARAD)
- National Oceanic & Atmospheric Administration's (NOAA's) National Marine Fisheries Service
- NOAA's National Ocean Service
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Coast Guard (USCG)

The U.S. Navy, U.S. Geological Survey (USGS), and U.S. Department of Agriculture are also participants.

Regional Dredging Teams (RDTs) have been established in most geographic areas in the United States, including the Great Lakes, Northeast, Southeast, Western Gulf, Southern California, Northern California, Pacific Northwest, Pacific Islands, and Alaska. Primarily composed of federal and state agencies with a variety of other stakeholders, the RDTs' objectives are the improvement of dredged material management through communication and planning, creation of a forum for issue resolution, and increased public education and community involvement.

Issues and Actions for the Next Decade. In its first five years, the NDT addressed a number of critical issues in the areas of dredged material management planning, the dredging review process, funding, and scientific uncertainties. In 2001, the NDT sponsored a stakeholder workshop to assess and, if necessary, adjust its role in dredged material management. The result was a new action plan, entitled *Dredged Material Management: Action Agenda for the Next Decade* (Action Agenda), which makes 22 recommendations addressing beneficial use of dredged material, regional sediment management, emerging issues, and strengthening RDTs. Approved by the NDT Steering Committee in July 2003, the Action Agenda is available on the NDT's website (*http://www.epa.gov/owow/oceans/ndt/*).

Beneficial Use of Dredged Material. Much of the several hundred million cubic yards of sediment dredged in the U.S. each year could be used in an environmentally beneficial manner, such as for habitat restoration and creation, beach nourishment, aquaculture, forestry, agriculture, mine reclamation, and industrial and commercial development. The majority, however, is placed in open water, confined disposal facilities, and upland disposal

facilities. Commonly cited hurdles to beneficial use are increased costs, the need for earlier planning and more widespread coordination, and a widespread misperception that dredged material is a waste instead of a resource.

To ensure beneficial use of dredged material, it must become a priority at all levels, funding must be increased, and local planning must be proactive in identification of projects, sponsorship, and suitability. A key aspect of beneficial use is removing the misperception that dredged material is not a resource. Recognition by the public and stakeholders of dredged material as a valuable resource for environmentally beneficial reuse is essential. The Action Agenda's recommendations focus on streamlining and increasing consistency of the national approach to beneficial use. They include guidance on beneficial use projects and the role of the Federal Standard in these projects, improving the Corps/EPA beneficial use website, and identifying factors needed to develop a beneficial use tracking system.

Sediment Management. Excessive sediment erosion, transport, and deposition are estimated to cause damages of approximately $16 billion annually in North America. The U.S. spends about $800 million annually on dredging. Sediment overloading from land and stream erosion may contribute to high turbidity, loss of flood-carrying capacity, and sediment deposition in navigable waterways. Yet a shortage of sediment causes coastal erosion, streambank erosion, and wetlands loss in many locations. Many water resource projects are designed to remedy local sediment problems, and sometimes create even larger problems some distance away.

Federal, state, and local stakeholders need to ensure that sediment management is accomplished in the context of watershed management, and that watershed planning incorporates dredging, so that sources of sediment, beneficial use opportunities, and funding can be addressed. The Action Agenda's recommendations include formation of new Local Planning Groups (LPGs) to develop Dredged Material Management Plans and sponsorship of a national workshop on sediment management with LPGs (planned for 2006). The NDT and RDTs are actively seeking to incorporate regional planning and broader stakeholder involvement. Some RDTs have developed or are in the process of developing long-term, regional plans.

Emerging Issues. Issues emerging over the last decade, such as Essential Fish Habitat, environmental windows, and Total Maximum Daily Load designations, have created new challenges for dredging. In order to maintain a review process that is timely, efficient, and predictable, planning strategies must be flexible enough to consider emerging issues and communication on these issues must be open and early. The Action Agenda's recommendations include guidance on how these emerging issues affect dredging and dredged material management. The NDT and RDTs are coordinating to address developing issues.

Strengthening Regional Dredging Teams. Ten RDTs have been established around the country. While some have been very successful, others have had mixed results. Progress has been affected by agency coordination, geographic size, and other factors. The NDT needs to continue to foster the success of new and established RDTs. The Action Agenda's recommendations include development of charters and outreach plans for each RDT, facilitation of Dredged Material Management Plans, and annual meetings for all RDTs with the NDT.

The NDT sponsored a National Meeting of the RDTs in February 2005. This meeting provided a forum to share experiences and progress, as well as to set new priorities and assess activities. The meeting not only reenergized coordination between the NDT and RDTs, but also provided RDTs with the opportunity to strengthen coordination among themselves. Outcomes include a renewed commitment from the RDTs and increased coordination plans between the NDT and RDTs.

Conclusion. The federal agencies on the U.S. NDT remain committed to improving the dredged material management process in the United States and to implementing the 22 recommendations in the Action Agenda. A coordinated, consistent approach that incorporates beneficial use, coordination among all stakeholders, and a watershed-wide approach will lead to more effective dredged material management.

Joint Corps/GIWW Users' Meeting

by Raymond Butler

A "landmark" meeting concerning Corps of Engineers maintenance spending on the Gulf Intracoastal Waterway (GIWW) was held in New Orleans on April 14 and 15, 2005. This meeting was the first gathering of such a broad group of Gulf Intracoastal Waterway interests and was the result of partnering efforts between Waterways Council, the national navigation infrastructure advocacy association in Washington, the Gulf Intracoastal Canal Association, and the Corps of Engineers.

The Purpose of the meeting was to continue an effort spearheaded by Waterways Council and Corps Headquarters to foster the planning of Corps of Engineers' Operations and Maintenance (O&M) funding on a "System Basis", rather than as individually budgeted waterway projects, managed by multiple Corps of Engineer Districts. The Corps of Engineers introduced the "system view" concept several months ago in order to maximize the benefit of these funds to the nation by optimizing management of the limited funding levels afforded the Civil Works budget for maintenance of our nation's inland waterways.

Attendees numbered nearly 100. Members from all three Gulf Coast Corps of Engineer Districts that impact the GIWW, as well as representatives from the three home Divisions of the Districts, were present at the meeting. Corps headquarters was represented, and assisted in guiding the efforts of the group. Also represented were senior leaders from Waterways Council, GICA, and several stakeholders from ports, barge carriers, and sponsors along the waterway. The U.S. Coast Guard was also in attendance.

Barry Holliday, Deputy Chief of Operations for U.S. Army Corps of Engineers' Headquarters

The system wide performance based concept originates from the fact that the constant dollar value of funding for Corps of Engineers Operations and Maintenance projects has been declining, as inland waterway infrastructure continues to age and demands on the inland system continue to increase.

Corps/GIWW Users' Meeting

Although difficult at times, the day and a half meeting produced a preliminary draft of the first ever, comparative assessment of a comprehensive listing of all projects impacting the entire GIWW, across all three Corps Districts. There was an abundance of effective interaction from waterway users and Corps Project Managers during the

sessions, which helped guide the process along a productive track. Plans are to continue developing this process during future Corps budget cycles and apply it across the entire inland waterway system. Other similar meetings are envisioned in the near future for additional portions of the inland waterways navigation system, and also to reconvene the GIWW group on an annual basis to update its listings.

Raymond Butler, Executive Director of GICA

The New Orleans District's Operations Division, headed by Mr. Greg Breerwood, hosted the meeting. Mr. Mike Park, of this organization, led the discussions. Most importantly, the entire meeting was excellently planned, coordinated, and recorded by Ms. Julie Vignes, who heads up the Navigation Function in Operations Division's Technical Support Branch of the New Orleans District. Our sincere thanks to both Julie and Mike for a flawlessly managed meeting!

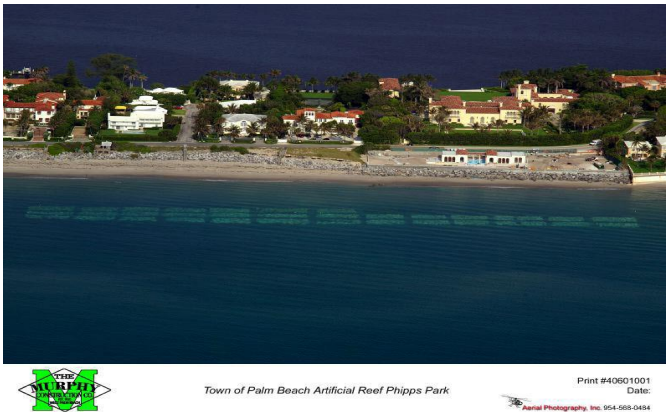
Avoiding, Minimizing, & Mitigating Coral Reef Resource Impacts Associated with Project Construction *by Penny L. Cutt and John F. Studt*

The U.S. Army Corps of Engineers (Corps) is an active participant on the U.S. Coral Reef Task Force, Steering Committee, and resolution working groups established under Executive Order (EO) 13089 - Coral Reef Protection. The Corps also participates in the State Local Action Strategies mandated by the U.S. Coral Reef Task Force. The Corps is fully committed to a watershed approach and to the mitigation sequence of avoiding and minimizing impacts prior to compensating for unavoidable impacts. Currently, the Corps focuses intensively on avoiding impacts to coral reef resources to the maximum extent practicable, recognizing the high ecological value of coral reef ecosystems. Coral reefs are one of six special aquatic sites designated under the Section 404(b)(1) Guidelines to receive maximum protection under the Corps review and evaluation processes. Furthermore, EO 13089 requires that all federal agencies provide the maximum protection available under their programs to coral reefs and associated ecosystems.

Photo courtesy of Nova Southeastern University

During project evaluation, the Corps avoids impacts to coral and associated habitats by requiring the relocation of proposed structures to areas devoid of important submerged aquatic resources, reducing the scope of dredging, and otherwise altering projects. After avoiding impacts to the maximum extent practicable, the Corps minimizes impacts through methods such as controlling turbidity, siting construction equipment away from coral resources, and relocating coral resources within the project footprint. Once sufficient avoidance and minimization is achieved, the Corps fully offsets

unavoidable impacts to the functions and values of the impacted coral resources through compensatory mitigation. The Corps decides how much to avoid, how much to minimize, and where to place compensatory mitigation within the watershed. Where cumulative impacts are substantial, ecological values of remaining coral resources are normally higher, so the Corps carefully evaluates proposed resource impacts to ensure maximum avoidance and minimization and then requires compensatory mitigation.



Typical in-kind compensatory mitigation involving natural limestone boulder placement as substitute habitat for the impacts associated with an authorized project

The Corps is continuing to improve the methods and techniques used for the identification of the functions and values of impacted resources and mitigation projects. The Corps takes a broad watershed view when evaluating compensatory mitigation. Compensatory mitigation is only required by the Corps when it has been determined that the proposed impacts cannot be further avoided or minimized. As it is difficult to provide successful compensatory mitigation for coral reef impacts, the Corps is considering innovative out-of-kind mitigation approaches. Mitigation credit was recently granted for the removal of tires that were breaking loose from a failed artificial reef and damaging natural coral reefs off Broward County. The Corps is also considering future mitigation credit for upgrading infrastructure to reduce Land Based Sources of Pollution, such as nutrients, which adversely impact coral reefs.

The Corps recognizes that construction errors have occurred in the past year in southeast Florida that have seriously damaged coral resources. For example, a hopper dredge ran out of the channel during the Key West Harbor Dredging Project. This error caused minor but irreparable damage to coral outcrops adjacent to the channel. Another recent impact was the weedwacking of hard corals, soft corals and sponges that occurred when the cable between a tug and a scow went slack during the transport of dredged material to an offshore disposal area, during the Hillsboro Inlet Dredging Project in Broward County, Florida. Coral resource impacts occurred in another project during geotechnical investigations associated with a proposed natural gas pipeline in Broward County, Florida, when boring equipment missed the targets identified between resources on the sea floor.

As a result of these unanticipated impacts to important coral reef resources, the Corps has modified its approach to permitting projects in the vicinity of such resources. The following two recent Corps regulatory decisions demonstrate this commitment to protecting corals and their associated ecosystems. Pursuant to its regulations, the Corps required an appropriate and exhaustive alternative analysis to avoid impacts to coral resources, resulting in all three applicants for natural gas pipelines in southeast Florida modifying their proposals from horizontal directional drilling (HDD) to tunneling. By tunneling from land out beyond the third reef tract in 120 feet of water, all anticipated and potential impacts to the near shore reef resources would be avoided. With the HDD approach, the anticipated coral impacts would be substantial. Moreover, the Corps believes that the potential for even greater coral impacts would result from construction errors and/or weather conditions with the HDD approach.

For the Broward County Beach Nourishment Project, the Corps has only authorized Segment III,

a portion of the proposed project work. The permit issued by the Corps requires 400 foot buffers between the edge of the borrow areas and the reef resources to keep the hopper dredge away from these resources and includes the most stringent monitoring program required to date for a beach nourishment project. The initial permit application proposed nourishment of Segment II as well as Segment III, with impacts to a total of 38 acres of coral/hard bottom resources. The issued permit only authorizes approximately 6 acres of impacts in Segment III. This segment was issued first because the coral resources are located further offshore and include less dense coral resources of lower ecological value. After 18 months of post construction monitoring, the Corps will review the data from Segment III and determine if Segment II can be issued. If Segment II is authorized, a total of 13 acres would be impacted, dramatically reduced from the originally proposed 38 acres of impact. Approximately 25 acres of impacts were avoided through negotiations between the Corps, other federal agencies, and the applicant, which resulted in the width of the nourished beach being reduced. Furthermore, the Corps is fully offsetting the functions and values of the 13 impacted acres through the construction of near shore artificial reefs. These two projects clearly demonstrate the Corps commitment to the goals of the Executive Order, the Coral Reef Task Force, and the Local Action Strategies.

Photo courtesy of Broward County

The Corps is involved in the Local Action Strategies (LAS) under the U.S. Coral Reef Task Force. When a Local Action Strategy (LAS) involves construction or regulatory issues, the Corps actively engages, as the Corps has in Florida's Maritime Industry and Coastal Construction Impacts (MICCI) Workgroup. The Corps has representatives from both its Regulatory Division and its Civil Works Planning Division actively participating in the Florida LAS MICCI Workgroup. The Corps coordinates with appropriate federal, state, and local agencies on project related issues in all of its programs. The Corps does not have grant authority, however, its Work for Others program is available to assist with the accomplishment of tasks identified by the LAS's.

Damage to reef resources after the cable drag that occurred during the Hillsboro Inlet dredging project (Vone Research)

The Corps has a clear commitment to provide maximum protection to coral resources, while allowing needed infrastructure development. The examples given demonstrate that the Corps is a learning organization and will continue to use innovative approaches for coral reef protection in the future.

For more information, contact Penny L. Cutt at *Penny.Cutt@usace.army.mil* or John F. Studt at *John.F.Studt@usace.army.mil*.

CHL Navigation Structures Modeling *by Donald Wilson and Randy McCollum*

The inland and intracoastal waterways of the United States provide almost 12,000 miles of channels for commercial traffic. The locks and dams that make navigation possible on a large portion of these waterways also provide flood control, hydroelectric power, local water supply, recreational opportunities, and habitat for fish and wildlife.

In 2004, 53 percent of all the locks and dams operated by the U.S. Army Corps of Engineers became over 50 years old. Typically, the design life for these structures is 50 years. Along with the advanced age of these projects and the associated increased maintenance and loss of service during maintenance or emergency repairs, many of the locks are inadequately sized for the amount of traffic and the size of tows that must use them. Rehabilitation, replacement, or additions of locks will be required to maintain the integrity of the inland waterways system.

Navigation conditions at many of the locks are less than optimal with the current designs. Proposed replacements or additions of locks could create even more adverse navigation conditions unless the designs are optimized to avoid these difficulties. Army regulations require that all proposed lock designs be model tested for evaluation of navigation conditions and for improvements that would alleviate any adverse conditions.

The Engineer Research and Development Center (ERDC) of the U.S. Army Corps of Engineers has been performing physical modeling to study navigation related issues at proposed locks and dams for well over 50 years. The scale of the models range from 1:40 up to 1:120, depending on the area of the study that needs to be evaluated and the complexity of the flow conditions. A typical model would be approximately 150-200 ft in length.

The models are typically built as a fixed-bed type molded of sand cement grout to sheet metal templates. These metal templates are cut to conform to contour cross-sections from the most recent topographic and bathymetric surveys available. The templates are carefully set in proper position and to proper grade. Structures such as dams, locks, and approach walls are fabricated from sheet metal and/or Plexiglas to proper scale from design drawings provided by the sponsoring District. The structures are carefully placed and graded. The sand cement grout is then poured, shaped to the templates, and then brushed to obtain the appropriate hydraulic roughness. Piezometers are incorporated into the model bed during construction to allow water surface elevations and slopes to be measured during model operations.

J.T. Myers Locks and Dam, Ohio River, 1:100 Navigation Model, Existing Condition

The initial operations of the model are to document the existing conditions. This is done by selection of flow conditions that provide the range of operating conditions from minimum tailwater to maximum navigable for the site. These conditions are replicated in the model and data obtained for water surface elevations, current directions and velocities, and tracking of the scale model towboat and barge flotilla. This information is compared to determine how well the model replicates available prototype data. Representatives of the towing industries who use the study reach are also asked to

come to the ERDC site, examine model data, observe model demonstrations, and actually perform operation of the model tow to provide their input as to model performance. When ERDC, the model sponsors, and towing industry agree that the model is performing adequately to represent existing navigation conditions, installation and evaluation of proposed plans begins.

Greenup Locks and Dam, Ohio River, 1:100 Navigation Model, Existing Condition

In the past, many navigation studies were performed to assist in the design of totally new locks and dams. The primary current usage is for lock extensions and replacements at existing lock sites. With a lock extension, the models are used to determine the length of approach walls to the lock necessary for safe navigation along with features such as flow regulation underneath floating or ported walls needed to eliminate difficult approach conditions. The models can also be used to examine impact loadings on approach walls (speed of tow, angle of tow at contact, position on wall of contact) to optimize the design of the approach walls to be sufficiently strong to resist most expected impacts without over-designing. For lock replacements, the models can be used to assess navigation impacts with proposed locations of the lock along with design of the approach walls. The towing industries are allowed to participate in this design and are asked for their comments as a final plan is developed.

The model studies provide major benefits to the projects. First, the models allow design for a safe, efficient entrance and exit from the project. Second, they allow for designs to be optimized providing both adequate navigation conditions and construction of only the wall lengths and strengths that are necessary. This allows savings on the cost of construction to be realized. The 2001 estimated cost for construction of a floating guide or guard wall design was $10,000 per linear foot. In the J.T. Myers study alone, over 1000 linear feet of approach walls was eliminated as a result of model testing with a resulting savings of at least $10,000,000. Third, proposed environmental mitigation designs can be evaluated to determine what impacts, if any, they might have on navigation conditions.

Prominent projects that have recently been studied, are currently being studied, or are soon be studied include:

- McAlpine Lock and Dam, Ohio River
- Olmsted Lock and Dam, Ohio River
- Kentucky Lock and Dam, Tennessee River
- Inner Harbor Navigation Canal Lock, Gulf Intracoastal Waterway
- Lock and Dam Nos. 2 and 4, Monongahela River
- J.T. Myers Lock and Dam, Ohio River
- Greenup Lock and Dam, Ohio River
- R.C. Byrd Lock and Dam, Ohio River
- Marmet Lock and Dam, Kanawha River
- Houma Navigation Canal Lock and Dam
- Lock & Dam No. 22, Mississippi River
- Lock & Dam No. 25, Mississippi River

Questions may be directed to Mr. Donald C. Wilson at Tel (601) 634-2813, Email *Donald.C.Wilson@erdc.usace.army.mil* or Mr. Randy A. McCollum at Tel (601) 634-2719, Email *Randy.A.McCollum@erdc.usace.army.mil*.

Dredging and Beach Nourishment for Birds; A Collaborative Effort Between the Corps and the American Bird Conservancy *by Richard Fischer*

In 2003, the U.S. Army Engineer Research and Development Center (ERDC) and the American Bird Conservancy (ABC), a non-profit organization dedicated to the conservation of wild birds and their habitats, initiated a partnership. The main objective of this collaborative effort was to expand the capabilities of the Corps to contribute to various bird conservation efforts, including the planning and execution of large, coastal engineering projects. The Corps dredges and relocates over 250 million cubic yards of material each year, and the placement of these materials during coastal dredging and disposal operations has significant (and sometimes unrecognized) potential for creation, maintenance, and management of coastal bird habitats. Many past coastal engineering projects have both intentionally and unintentionally created very important habitats for shoreline dependent birds such as terns, skimmers, and plovers. For example, many near-shore nesting islands used by black skimmers and terns were created with dredged materials resulting from maintenance dredging of the Atlantic Intracoastal Waterway. Many of these sites have undergone vegetation succession, rendering them unsuitable for nesting or roosting. Without the regular placement of sand on these islands, species such as terns and skimmers are forced to nest on mainland beaches where disturbance from human recreational activities can seriously hamper nest success, and predation by raccoons and cats can result in significant egg, nestling, and adult mortality. As our coastlines experience increasing pressure for development and recreation, there will be an increasing need for creative solutions that address both the disposal of sediments and the creation and/or maintenance of existing sites for suitable nesting, foraging, and roosting habitats by a variety of coastal bird species.

To begin understanding regional bird conservation issues as they relate to coastal projects, the Corps and the ABC hosted the first of 4 regional workshops on coastal waterbirds and shorebirds at Jekyll Island, Georgia, during February 1-4, 2005. Objectives of the South Atlantic workshop included making the bird conservation community aware of opportunities that exist through working with the Corps, and to address and hopefully reduce some areas of conflict between birds and Corps projects. The first workshop covered the South Atlantic Coast, essentially from the Virginia-North Carolina border to south Florida. Attendance during the 4-day meeting ranged from 80 to 125 people. Representatives from the five Corps Districts in the region, and personnel from federal and state resource agencies, non-governmental organizations, and public interest groups delivered nearly forty professional presentations during the week. These presentations provided an excellent foundation on both Piping Plover wintering ecology and the potential effects of coastal Corps projects on bird populations along the South Atlantic coast. Many of these presentations are available online at: *http://el.erdc.usace.army.mil/training.cfm?Topic=Workshop&List=05feb-dots*.

Black Skimmers, Photo Credit: Judy VanHoff

Key items and actions from the meeting included the following:

- The realization that the coastal bird research and conservation communities need to

become more involved with the Corps in long-term planning for coastal bird habitat creation and management. Increased coordination between existing coastal bird conservation initiatives and the Corps' dredging, wetland restoration, and shoreline protection programs has the potential to reduce some of the major threats to coastal bird populations.

- The Corps is in an excellent position to contribute directly to coastal bird conservation, an objective that fits well with its environmental mission. Collaboration and creative solutions to conflicts will simultaneously meet logistical and cost considerations for the Corps' missions and provide quality habitat management for birds.

- The ABC, ERDC, and U.S. Fish and Wildlife Service will assess the need for a generic regional outline of important habits that should be considered when designing beach projects so as to protect bird habitat. These sites include (but are not limited to) beaches, dunes, inlets, inlet shoals, mudflats, and offshore shoals. This will be a collaborative effort within the existing conservation planning nexus of the North American Bird Conservation Initiative.

- The ABC will continue to provide expertise to the Corps on the needs of priority bird species, in coordination with the North American Waterbird Conservation Plan, the U.S. Shorebird Conservation Plan, and the Atlantic Coast Joint Venture.

- Web-based information and publications on such topics as shorebird and waterbird monitoring, local trend conditions, and management, will be compiled for use in developing a decision-support website, for wider accessibility of information and data by the public.

Current and future work under the Corps' Dredging Operations and Environmental Research Program (DOER) and the Dredging Operations Technical Support (DOTS) Program will continue this and other work related to birds, dredging, and beach nourishment. The collaborative effort between ABC and ERDC will provide the Corps with a foundation for improving management of dredged-material disposal sites for both active disposal and bird habitat management. The second workshop in this series (North Atlantic Coast) is planned for Long Island, New York, during the week of October 24, 2005. For more information about this or other upcoming regional workshops, contact Dr. Richard Fischer at Tel (502) 315-6707, or Email *Richard.A.Fischer@erdc.usace.army.mil*.

Innovative Reuse of Dredged Material and Crushed Glass *by Landris T. Lee, Dennis G. Grubb, Michael S. Carnivale III, Timothy L. Welp, and Thomas W. Groff*

The U.S. Army Corps of Engineers, Philadelphia District, recently partnered with Apex Environmental Inc; the Pennsylvania Department of Transportation (PennDOT), and the City of Philadelphia recycler (Blue Mountain Recycling, Inc) to conduct an innovative project demonstrating the beneficial use of blending dredged material with curbside-collected recycled crushed glass. Curbside collected glass was crushed and screened (3/8" minus) to provide feedstock for blending dredged material stored in an upland confined disposal facility near the Philadelphia airport. A major goal of the project was to determine the feasibility of creating synthetic landscaping, embankment, and structural fill materials to provide additional beneficial markets for recycled glass and dredged material stockpiles.

The dewatered dredged material was obtained from the Ft. Mifflin Basin A and classified as an organic silt (OH) of moderate plasticity with approximately 80 to 100% passing the No. 200 (75 micron) sieve. The glass was crushed to 3/8" minus

to eliminate physical handling hazards with less than 1% passing the No. 200 (75 micron) sieve.

Curbside glass for recycling

Dewatered dredged material

Previous research conducted at Drexel University focused on laboratory testing of recycled glass blended with differing proportions of dredged material. The crushed glass and dredged materials were blended at 20% increments by dry weight to determine which range of blends would be suitable as structural fill based. The laboratory evaluation consisted of blended material index properties, compaction, shear strength, hydraulic conductivity, dynamic, and consolidation properties.

3/8" crushed and screened recycled glass

The field demonstration project was completed in June 2004. Clean Earth Dredging Technologies Inc. completed the pugmill blending and trial embankment construction operations using 20/80, 50/50 and 80/20 blends (crushed glass to dredged material ratios by weight). The crushed glass and dredged materials were transported and stockpiled using heavy equipment and were then pugmilled using a trailer-mounted pugmill with an operational capacity of 200 tons per hour. Quality control procedures for samples collected randomly within each 30-minute window of blending and stockpiling operations ensured compliance to the targeted blending ratio within a tolerance of plus or minus 5% by weight. Numerous public and private stakeholders were invited to observe the blending operation and fill construction progress in the innovative pilot study.

Pugmill blending operation

Trial embankments were constructed with 8-inch lifts according to PennDOT procedures except for the optimum moisture content criteria. The height of the embankments was 12 feet, with a top footprint of 12 x 50 ft with 2H:1V side slopes.

The 20/80 blended embankment was easily compacted to minimum of 90% modified Proctor compaction, greater than the 97% standard Proctor compaction criteria required by PennDOT embankment construction specifications for typical fill materials. During dry conditions, this criteria was usually met on the first proof-rolling attempt. Likewise, the 50/50 and 80/20 mixtures posed no workability or compaction challenges even though the comparable compaction requirement was a minimum of 95% modified compaction. Subsequent cone penetration testing on the 80/20

embankment revealed an average cone tip resistance of 25 tons/ft^2 for its entire thickness, tested at three locations.

Compacting the 20/80 blended mixture

In summary, the laboratory tests and pilot study showed that blended crushed glass and dredged material is an innovative material. Market acceptance of this material will depend on economic factors and acceptance by state transportation agencies. Research is continuing to explore the material properties and engineering behavior aspects. This article has been sponsored by the Innovative Technologies Focus Area of the U.S. Army Corps of Engineers' Dredging Operations and Environmental Research (DOER) Program, Interested parties may contact Tom Groff, USACE, Philadelphia District Operations at Tel (215) 656-6738 or Dennis G. Grubb, PhD., PE of Apex at Tel (610) 722-9050 for more information.

Meet the Commissioners *by Bruce Lambert*

During the U.S. Section meeting in Charleston, Mr. Robert Nichol and Mr. Kurt Nagle completed their second terms as National Commissioners. The U.S. Section wishes to once again give Mr. Nagle and Mr. Nichol another round of thanks for their commitment and service.

Two New Commissioners were appointed: Mr. Mr. John Headland of Moffatt & Nichol and Mr. David Sanford of the American Association of Port Authorities. Mr. Headland and Mr. Sanford will each serve four years as National Commissioners for the U.S. Section.

John Headland

Mr. John Headland is a Senior Vice President and Regional Manager responsible for Moffatt & Nichol's (M&N) northeastern United States operations. Over a career spanning more than 20 years as a port and coastal engineer, he has specialized in the planning and design of waterfront and hydraulic engineering aspects of port infrastructure projects throughout the world. Mr. Headland has served as Principal-in-Charge and/or Project Manager for several recent waterfront projects including the New York/New Jersey (NY/NJ) Harbor Navigation Study, NY/NJ Port Master Plan, the Port Newark Container Terminal Development and the Sussex St. Pier Reconstruction at the Goldman Sachs complex in Jersey City.

Prior to joining M&N, Mr. Headland served as the U.S. Navy's worldwide technical consultant for harbor and coastal facilities. In this role, he was responsible for planning and design guidance for the development of major waterfront facilities throughout the world. Mr. Headland was responsible for updating Navy Facilities Command (NAVFAC) design manuals to reflect state-of-the-art harbor and coastal engineering design methods. Mr. Headland was involved in dredging, sedimentation and dredge material disposal at various U.S. Navy facilities. His service was recognized and honored in 1989, when he received NAVFAC's Engineer of the Year award. Mr. Headland has been a M&N employee from 1980 to present and was an employee of the U.S. Army Corps of Engineers from 1977 to 1980.

Mr. Headland has been an active participant in PIANC and American Society of Civil Engineer's Coasts, Oceans, Ports, and Rivers Institute (ASCE/COPRI) activities, including the PORTS Conference Series. He currently serves on the Board of Directors for ASCE/COPRI. Mr. Headland currently serves as U.S. Representative to PIANC Maritime Commission Working Group 43, Minimizing Harbor Siltation, and recently participated in ASCE/COPRI teams studying the catastrophic damage from the recent earthquake and tsunami in Southeast Asia.

David Sanford

Mr. David Sanford currently serves as Director of Navigation Policy and Legislation for the American Association of Port Authorities (AAPA) in Alexandria, Virginia. He is responsible for formulating industry-wide policy positions, key liaison activities with the U.S. Army Corps of Engineers, the Administration and Congress and advising the President and CEO of AAPA on international navigation related matters.

Before joining AAPA, Mr. Sanford held the position of Senior Fellow and Lead Research Scientist at the George Washington University, Washington, DC, Institute for Crisis, Disaster and Risk Management. He participated in a special assignment to the U.S. Army Corps of Engineers Institute for Water Resources in Alexandria, Virginia, as a Visiting Scholar.

Prior to retirement from Federal Service in March 2002, Mr. Sanford served as the Chief, Interagency and International Services Division, Directorate of Military Programs, at Corps Headquarters in Washington, DC. He was responsible for executive oversight and overall strategic direction and policy for the Corps reimbursable services program with a budget of $3.1 billion. Mr. Sanford was also responsible for the development and negotiation of nationwide and international agreements for provision of reimbursable engineering services with other Federal agencies and foreign governments in 92 countries.

Mr. Sanford served with the Army for nearly 34 years. He served on active duty in the Military Police Corps from 1966 to 1969. After joining the Army Corps of Engineers in 1971, he served in a series of responsible positions in the Huntington District; then on to Ohio River Division as Chief of Plan Formulation and Chief of Navigation Planning in Cincinnati and, after going to the Headquarters in 1989, as Assistant Chief, Planning and Policy Division. Following appointment to Senior Executive Service in 1995, he served as Chief of Civil Works Policy for five years and was responsible for policy development, guidance and legislation for the Corps Nationwide $4 plus billion public works program.

Presentation of 2005 Jack Nichol Award *by Rich Dornhelm*

The Jack Nichol Marina Design Award (JNA) for 2005 was presented at the AGA 05 to the Hammond Marina in Hammond, Indiana, about 14 miles (by boat) from downtown Chicago. PIANC established the JNA to recognize outstanding marina design in memory of the late Jack Nichol, a distinguished member of the Recreational Navigation Commission, and a renowned marina designer. The award was presented by Cees Vander Widlt, Chairman of the RecCom, to Nancy Cutka and Robert Nelson representing the Hammond Port Authority, owner of the marina.

Several marina applications of high caliber competed for the award this year, all evidencing concern for environmental values and engineering solutions that required imagination and advanced understanding of harbor engineering principles. The Hammond project ranked especially well for environmental restoration and accommodation of

community concerns, as well as the innovative two-level breakwater system that forms the marina basin.

Presentation of 2005 Jack Nichol Award to Nancy Cutka and Robert Nelson

The Hammond site was a former steel mill slag dump that has been transformed into the second largest marina on Lake Michigan. The once barren and exposed shoreline required that a breakwater be constructed because no natural harbor existed. The sand dredged from the new harbor was used to form a public beach and dune system that provides a bird sanctuary and a public park adjacent tot the marina.

Hammond Marina in Hammond, Indiana

The marina, opened in 1991, has 1,113 wet slips ranging in length from 30 ft to 100 ft and has all the desired amenities for boaters, including active youth sailing programs to attract the boaters of the future. Smaller boats can gain access to the Lake by means of the marina's public boat launching facility. The marina design has been a great success and has become a model for other boating facilities in the area. The design team was lead by Warzyn Associates.

Activities of the Young Professional's Implementation Group *by Shana Heisey and Jessica McIntyre*

In 2003 the international body of PIANC established a Young Professionals Implementation Group to address the high average age of PIANC members and the growing "generation gap" in some nations. The group has focused on integrating young professionals (YP) into the structure of existing national sections, encouraging these individuals to participate in PIANC activities, and attracting new young members. The group will host an YP session at the upcoming international PIANC conference in Portugal, May 14-18, 2006. Several national sections have had great success establishing YP groups within their organizations. Activities recently undertaken in European sections include:

- Seminars or symposia on navigation topics held in conjunction with technical site visits (UK, Belgium, Spain)
- Sponsoring a list server as a means of information exchange and question response (Spain)
- Organized social events including family picnics, a "Grand Ball", and New Year's celebrations (Belgium, The Netherlands)

Jessica McIntyre (Moffatt & Nichol) and Shana Heisey (USACE Institute for Water Resources) represent the U.S. Section on this committee and are developing a plan to encourage involvement of American young professionals at the national and international levels of PIANC. Potential activities at the national level may include sponsoring webinars with international speakers on navigation topics, holding YP sessions at the national

meetings, and including a regular column in this newsletter featuring topics of interest to young professionals or highlighting YP accomplishments in the navigation community. In addition, the international PIANC Executive Committee is currently allowing a second representative from each national section on new working groups if at least one of the nominees is a young professional; a YP page on the U.S. Section website will outline these working groups and provide an opportunity for interested individuals to nominate themselves for consideration.

PIANC International YPIG in London, April 2005 (left to right): Elio Ciralli (Italy), Holger Schuttrumpf (Germany), Peter Troch (Belgium), David Romero Faz (Spain), Kirsty McConnell (UK), Ruwaida Edries (UK), Shana Heisey (USA), Charlotte Hoek (Netherlands)

The first step in developing this implementation plan is to survey for interest. "Young Professional" is being loosely defined as members under 40 years old; either corporate or individual YP are encouraged to send an email to either of the U.S. Section representatives to indicate their interest (Shana's Email *shana.a.heisey@usace.army.mil*, Tel (703) 428-9088; Jessica's Email *jmcintyre@moffattnichol.com*, Tel (813) 258-8818). We recognize the needs of YP in the organization may be different than those of more senior members and would appreciate input on ways to meet those needs. We are targeting Fall 2005 for our first activity and welcome suggestions for topics or events.

Get Your Project "On Course" *by Louis Van Schel, Secretary-General, PIANC*

Recently, the PIANC Magazine "On Course" has undergone a restyling, both of its content and the presentation. In addition, we now publish four issues per year compared to three until recently. PIANC Member response has been favourable towards these changes, providing added value to magazine readership.

The editorial staff of "On Course" invites two or three articles from authors within the U.S. Section, covering current issues in the field of inland, maritime, or recreational navigation, or related environmental topics. Articles should be descriptive of major infrastructure projects and programs, rather than theoretical and mathematical in nature that has traditionally been published in the past.

Together with our Technical Working Group Reports, the PIANC Magazine "On Course" is a unique publication with a world spanning reach among high-qualified experts. U.S. Section members are encouraged to take this opportunity for submitting articles covering their significant projects, with a submittal deadline of July 17, 2005.

Upcoming PIANC Events
by Edmond Russo

31st World Congress. The next International Congress will be held May 14-18, 2006 in the Portuguese resort city of Estoril.

Upcoming Related Conferences

2005

- ***5th International Symposium on Ocean Wave Measurement and Analysis.*** (Waves 05) July 3-7. Madrid, Spain.
- ***Coastal Zone 05: Balancing on the Edge.*** July 18-21. New Orleans, Louisiana.
- ***Asian and Pacific Coasts 2005 (APAC2005).*** September 4-8. Jeju, Korea.
- ***Port of Los Angeles (POLA) Container Wharf Seismic Code Workshop.*** September 13-14. San Pedro, CA.
- ***U.S. Maritime Security Expo.*** September 20-21. New York, New York.
- ***Coasts and Ports Australasian Conference 2005.*** September 20-23. Adelaide, South Australia.
- ***Urban River Rehabilitation.*** September 21-23. Dresden, Germany.
- ***ASBPA's 2005 Fall Conference.*** October 10 - 12. San Francisco, CA.

2006

- ***30th International Conference on Coastal Engineering.*** September 3-8. San Diego, CA.

2007

- ***Port*s 2007.** March 25-28. San Diego, CA.
- ***Coastal Sediments 2007.*** May 13-17. New Orleans, LA.

About PIANC *by Anne Sudar*

What is PIANC? The International Navigation Association (PIANC) is a worldwide organization of individuals, corporations, and national governments. Founded in 1885 in Brussels, Belgium, it is concerned with maritime ports and inland waterways. The Association promotes contact and advances and disseminates information of a technical, economic, and environmental nature between people worldwide in order to efficiently manage, develop, sustain, and enhance inland, coastal and ocean waterways, ports and harbors, and their infrastructure, in a changing environment.

Where is PIANC? The international headquarters is located in Brussels, Belgium, at facilities provided by the Belgian Government. The headquarters of the United States Section is located in the Washington, D.C. area, within facilities provided by the U.S. Army Corps of Engineers.

International Interaction. The Annual General Assembly operates through a Council, which directs the working level permanent technical committees, international study commissions, and working groups.

Working Groups. Technical working groups are composed of participants from member countries who have interest in various subjects being studied. The groups gather, analyze, and consolidate state-of-the-art material from each country. The resulting reports are published and sent to each PIANC member. Working group reports and the International Bulletin are sent to each member from Brussels.

Every four years an International Congress, open to all members and other registrants, is held for the presentation and discussion of papers on subjects pertaining to waterways and maritime navigation.

PIANC also participates in technical activities with other organizations to study navigation problems and joins with them to present symposia on related subjects.

In the USA. The United States became a member of PIANC by Act of Congress in 1902. The Chairman of the U.S. Section is the Assistant Secretary of the Army (Civil Works). The Director of Civil Works for the U.S. Army Corps of Engineers serves as President. A National Commission of eleven individuals, which represent both private industry and the Federal Government,

manages the Section. The U.S. Section has two standing and four technical committees, which promote the flow of information between members and facilitate cooperation with other national organizations. The committees are Membership, Publications, Environment, Inland Navigation, Maritime Navigation, and Ports and Recreation Navigation.

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